

Far Detector General Meeting

Purpose and Format of Far Detector General Meeting

- Provide a regular status report of Far Detector activities to full DUNE Collaboration.
- Format will be one or two longer talks plus Working Group updates.
- “Project-aligned” WG will report every meeting.
- “Cross-cut groups will alternate.

Status of Working Groups

- Almost all WG are fully organized.
 - Exception: still working on Electronics Group Convener.
 - A few deputy slots are open.
- Most WG are meeting this week.
- WG meetings will be every other week, or monthly during detector weeks.
- Please join WG and subscribe to mailing lists.
- See
<https://web.fnal.gov/collaboration/DUNE/SitePages/Home.aspx>
and
<https://web.fnal.gov/project/LBNF/SitePages/LBNF%20and%20DUNE%20Mailing%20Lists.aspx>

Project Aligned Working Groups

WG	Conveners	Managers	Meeting Time	Mailing List
Single Phase TPC	Mitch Soderberg, Michelle Stancari, Andrzej Szelc	Bob Paulos, Bo Yu	W 0900-1000	dune-fd-single-phase-tpc
Dual Phase TPC	Marco Zito, Sebastien Murphy	TBD	TBD	dune-fd-dual-phase-tpc
Photon Detector	Ed Blucher, Ettore Segreto, Matt Touns	Norm Buchanan	TH 0830-1000	dune-fd-photon
DAQ	Giles Barr, Georgia Kargiorgi, Jacques Marteau	Giles Barr, Matt Graham	M 1000-1200	dune-fd-daq
Electronics	Christopher Mauger (Acting)	Bob Hackenburg	TBD	dune-fd-electronics
Installation and Integration	Marvin Marshak, Roxanne Guenette	Jack Fowler	TBD	dune-fd-install

Cross Cut Working Groups

WG	Conveners	Managers	Meeting Time	Mailing List
LBNF/Cryo Interfaces	Milind Diwan	(Russ Rucinski, Terri Shaw)	TBD	(all lists, as necessary)
High Voltage	Glenn Horton-Smith, Emilija Pantic, Shuoxing Wu		TBD	dune-fd-hv
Calibration	Josh Klein, Igor Kreslo		TH 0900-1000	dune-fd-calibrations
Purity/Radiopurity/Cleanliness	Cham Ghag, Luke Corwin, Juergen Reichenbacher		M 1000-1200	dune-fd-purity
Detector Performance	Bob Svoboda, Alex himmel, Mayly Sanchez		TBD	dune-fd-performance

Major Milestones till Christmas

- Team to study the far detector optimization needs established - Now.
- Photon Detector Technology selection for ProtoDUNE October
 - Need to understand strategy with SNBD
- 35t prototype cryostat should be full (November?)
- CD-3a Directors review @ SURF 27-29 Oct
- SPSC meeting (CERN, 10/20-31)
- Engineering Interface meeting @ CERN
- CD-3a DOE review @ SURF 2-4 Dec
- ProtoDUNE cryostat order placed End 2015?

Input needed for decisions - examples

- TPC
 - What impact does U/Th in the cathode plane have on physics?
 - Need to select a frame material for the Cathode that is not neutral buoyant.
 - Is a vibration isolation needed for the APA mounts?
 - How much does the cryostat roof deflect under operation?
- Photon Detector
 - What is the impact of Ar39 on performance?
 - How does Ar39 impact the usefulness of late light
 - What coverage is recommended for ProtoDUNE?
 - Will need techboard review.

Way forward

- Working groups and managers need to collect open questions, plan the studies for getting the answers, and tracking progress.
- This is a path to engage new people.
- Most working groups are not detector technology specific.
- Need to understand possible synergies between the two detectors.
- A plan for detector studies needs developed.
- When possible this needs to be for both technologies.
- Understanding the commissioning needs for ProtoDUNE is needed.
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Schedule

- The DUNE reorganization and four unplanned reviews in CY 15 have slowed technical progress and the schedule will need revised to reflect the impact of this work.
- Limited funding in FY 16 and the need to engage international collaborators may slow progress below what was planned.
- Engagement by new collaborators may compensate. Need to be proactive.
- Following slide shows an example of what is in the schedule now.
- Will need to revise the schedule between now and January.

Schedule Highlights

- TPC WBS highlights
- Oct Test new Field Cage concept at CERN
- Dec Complete Full scale ProtoDUNE prototype APA
- Jan Select CPA surface material
- Jan APA Design Review
- Feb Next Generation winding machine design finished
- March Design complete CPA
- March Design complete Field Cage
- April Construction of APA cryo teststand complete
- July First ProtoDUNE APA complete
- Aug APA handling and transport tooling design finished
- Oct First ProtoDUNE APA complete